

**Table III**  
**Identification of Emerging Technologies**  
**Source Category: Fugitive Emissions of VOCs from O/G Production**  
**and Processing Facilities**

Pollutant: VOC

Description of Emerging Technology	Status	Source	Comments
<b>Compressor:</b> - double mechanical seals with barrier fluid - oil film or gas seal - face type seal - enclosed shaft seals and vent to vapor recovery or disposal system - gas seal system vented to a thermal oxidizer or other approved vapor recovery or disposal system	Used in addition to rigorous I&M program to control chronic leak points.	BAAQMD BACT Guideline SCAQMD BACT Guideline	Discussion with Bob Nishimura, BAAQMD staff, telephone number: 415-749-4679.
<b>Flanges:</b> - graphitic gaskets or gaskets rated at 150% of actual working pressure at service temperature	Used in addition to rigorous I&M program to control chronic leak points.	BAAQMD BACT Guideline SCAQMD BACT Guideline	Discussion with Bob Nishimura, BAAQMD staff, telephone number: 415-749-4679.
<b>Pumps:</b> - double mechanical seals with barrier fluid - magnetically coupled pumps - canned pumps - magnetic fluid sealing technology - sealless pump - gas seal system vented to thermal oxidizer or other approved vapor recovery or disposal system	Used in addition to rigorous I&M program to control chronic leak points.	BAAQMD BACT Guideline SCAQMD BACT Guideline	Discussion with Bob Nishimura, BAAQMD staff, telephone number: 415-749-4679.

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<b>Valves:</b> - Zero Stem Leakage control valves: Seal-less, electro-magnetically actuated control valves available in sizes 1/2" through 8" in a variety of materials of construction. The valve design concept was first introduced in the early 1970's for application in nuclear power generating facilities, where the safety of plant personnel and environmental concerns were of primary importance.	Has been installed in both U.S. and worldwide nuclear power generating facilities. Currently, few (~ 8) installed at pipeline transfer stations in CA. Demonstration tests are underway.	Steven R. Pauly, Technical Sales Manager, Nuclear & Industrial Division, Target Rock-Subsidiary, Curtiss-Wright Corporation.	The Target Rock seal-less control valve design concept was first introduced in early 1970's for application in nuclear power generating facilities. The Company wants to expand this technology to the industrial industry, specifically, refineries and petrochemical plants. Target Rock is currently working with ARB staff to get valves pre-certified as "leakless/leakproof" - Contact: Glenn Simjian, SSD.
<b>Valves con't:</b> - Bellows valves (sealed bellows) - diaphragm valves - quarter turn valves - live loaded valves - graphite or PTFE anti-extrusion rings with live-loaded/lined packing - monitoring ports in the bonnet for leak detection	Used in addition to rigorous I&M program to control chronic leak points.	BAAQMD BACT Guideline SCAQMD BACT Guideline	Discussion with Bob Nishimura, BAAQMD staff, telephone number: 415-749-4679.

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<b>Pressure Relief Valves:</b> - rupture disk - vent to fuel gas recovery system, furnace, or flare with a recovery/destruction efficiency $\geq$ 98% - rupture disk with vent to fuel gas recovery system, furnace, or flare with recovery/destruction efficiency $\geq$ 98%	Used in addition to rigorous I&M program to control chronic leak points.	BAAQMD BACT Guideline SCAQMD BACT Guideline	Discussion with Bob Nishimura, BAAQMD staff, telephone number: 415-749-4679.

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